

**REMARKS/ARGUMENTS**

Applicant has concurrently filed a request for a three-month extension of time. Accordingly, Applicant respectfully submits that this Response is timely filed. Please charge our deposit account number 02-2095 in the amount of \$1,110.00, which comprises the extension of time fee. Please also charge any additional fees that may be required, or credit any overpayment, to our deposit account.

**Claim Status**

By this response, claims 17 and 59-62 have been amended. Support for the amendments to claim 17 can be found at least in paragraphs [0049] to [0052], and Figure 7A of the application as filed.

Claim 63 is new. Support for the subject matter of claim 62 can be found at least in paragraph [0037] and Figures 3 and 5 of the application as filed.

Claims 1, 2, 4-16, 20, 21, 25, 27, 34, and 36 were previously cancelled.

Claims 18, and 19 are in their original state.

Claims 22-24, 26, 28-30, 35, 37, 39, 40, 43, 45, 46, 47, 49, 50, 52, and 53 were previously amended.

Claims 31-33, 38, 41, 42, 44, 48, 51, and 54-58 were previously presented.

**Claim Rejections – 35 USC §103**

In the Office Action, the Examiner stated that claims 17-19, 22-24, 26, 28, 30-33, 35, 37-39, 41, 42, 44, 45, 47, 48, and 50-62 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,474,524 (hereinafter Ivarson) in view of U.S. Patent 6,164,509 (hereinafter Gausling), further in view of U.S. Patent 6,024,265 (hereinafter Clements), and further in view of U.S. Patent

6,601,743 (hereinafter Godshaw). Applicant respectfully traverses the Examiner's rejection, as follows.

1. A Person of Skill in the Art Would Not Combine Gausling with Ivarson to Produce a Backpack with a Semi-rigid Bottom Board Angled Upwardly (Claims 17, 22, 47).

Ivarson teaches a backpack that has "at least one divider within the internal cavity connected to and intersecting the back panel at a diagonal, and extending between the right and left side panels to provide a diagonal support surface for an item placed within the pack" (abstract). The front panel of the backpack (labeled the "bottom" by the Examiner) is "generally parallel to the first divider plane 30a, so that the volume between front panel 14 and divider 30 is consistent with the remaining volume in its load orientation, and that front panel 14 itself provides a diagonal support surface" (Column 2, lines 33- 37). Accordingly, the overall shape of the backpack of Ivarson is trapezoidal. This can be seen most clearly in Figure 1 of Ivarson.

These diagonal surfaces serve ergonomic functions in the backpack of Ivarson. For example, Ivarson states as follows:

"The angle of the divider(s) serves to orient the contained load of the pack and direct the weight of the load towards the back panel, thereby distributing the weight along the length of the user's back" (Column 1, Lines 40-43); and

"The diagonal orientation of the divider(s) evenly distributes the weight of the contents to the back panel and shoulder straps for maximum comfort and carrying stability" (Column 1, Lines 52-55)

Accordingly, Applicant respectfully submits that, based on the disclosure, the diagonal surfaces and the resulting trapezoidal shape of Ivarson are an important

feature for achieving the weight distribution of a load in a backpack that is taught by Ivarson.

Gausling teaches a backpack having "a series of top straps, side straps, bottom straps, and optional support members" (abstract). In contrast to Ivarson, the purpose of the various straps and support members of Gausling is to keep the backpack square. For example, Gausling states as follows:

"Another feature of the present invention that provides added support and ergonomic utility to the backpack is a rigid pack body bottom side 204. As will be seen, such a characteristic serves to keep the bookpack body 200 square..." (Column 7, lines 13-16, emphasis added); and

"Each top member 600 runs along the top panel and connects at its distal end 620 to the right or left shoulder support member 300 at a point distal to where shoulder strap 300 attaches to backpack body 200. For instance, in FIG. 3, top strap 600 attaches to shoulder strap 300 several inches from body 200. Top strap 600 may also attach to optional yoke 340. Generally, however, we prefer that the distal end 620 of top strap 600 attach to the shoulder support member 300 at a point approximating the uppermost portion of the wearer's shoulder when the backpack is fitted on a wearer. As will be described in detail below, this attachment point provides the most efficient and direct load transfer and helps to maintain an ideal square shape to the top of bookpack body 200." (Column 8 Line 60 to Column 9, line 9, emphasis added).

Accordingly, a goal of Gausling is to provide a square backpack.

Independent claims 17, 22, and 47 of the present application specify a bottom board that is at least semi-rigid, and that is angled upwardly in a direction away from the back-facing face. In the Office Action, the Examiner argued that Ivarson discloses a backpack having a bottom that is "angled upwards in a direction away from said back-facing face". The Examiner further argued that Gausling

teaches "that a rigid bottom on a backpack body provides angled support and ergonomic utility to the backpack". The Examiner then concluded that "it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide rigidity along the bottom surface of the Ivarson et al. backpack by implementing a semi-rigid bottom board along the bottom surface, as taught by Gausling et al, in order to provide additional support and ergonomic utility to the backpack".

Applicant respectfully disagrees with the Examiner's argument. Ivarson did not use a bottom panel *per se*. In particular, while the Examiner has referred to the panel denoted by reference numeral 14 in Ivarson as the "bottom", Applicant points out that Ivarson labels it as the "front panel". Therefore, Ivarson did not use a bottom panel. As noted hereinabove, the angled front panel 14 of Ivarson renders the backpack of Ivarson trapezoidal, and is important to the functionality of Ivarson. The construction of the backpack, including the provision of internal dividers 30, 34 and 36 results in this shape. As acknowledged by the Examiner, Ivarson does not teach that any reinforcement is needed for front panel 14. Due to the angled orientation of front panel 14, a load placed in the backpack on the inner surface of front panel 14 would slide downwardly and rearwardly towards the wearer's back. In contrast, bottom panel 204 of Gausling is horizontal. The rigid bottom board of Gausling, functions to keep the backpack of Gausling square, as opposed to sagging as known in the prior art (see Figure 1 of Gausling). Therefore, the rigid bottom board of Gausling is used to maintain the backpack square whereas Ivarson teaches that the front panel 14 should be angled. Accordingly, Applicant respectfully submits that a person skilled in the art would not combine the rigid bottom board of Gausling with the angled bottom of Ivarson, because the two features each serve to provide the respective backpacks with a different shape, and therefore, serve opposing functions.

If a person skilled in the art were to combine the references, then Applicant submits that the person skilled in the art would amend Ivarson to be square, i.e.,

to have a flat bottom panel. Applicant notes that both Gausling and Ivarson are contemporary patents, each having a priority date in 1999. Each reference taught a patentable construction to provide a more ergonomic backpack. A person skilled in the art would appreciate this and would appreciate that the design enhancements of Gausling relate to the use of a rigid board to create a flat bottom. In other words, the rigid board itself was not the improvement. A person skilled in the art desiring to use the improvement of Gausling in the design of Ivarson would amend the design of Ivarson to use a rigid horizontal bottom panel as taught by Gausling.

Accordingly, Applicant respectfully submits that claims 17, 22, and 47 are not unpatentable over Ivarson in view of Gausling, further in view of Clements, and Godshaw for at least this reason.

2. A Person of Skill in the Art Would Not Combine Gausling with Ivarson to Adjust the Location at which the Shoulder Straps are Connected to the Upper End of the Backpack of Ivarson (Claims 17, 22, 30, 47).

Independent claims 17, 22, 30, and 47 of the application each specify a shoulder strap cinch strap. For example, in claim 17, it is specified that the shoulder strap cinch straps extend over the closure member. Accordingly, as exemplified in Figure 7A of the application, the rearward end of the shoulder strap cinch straps are connected to the top panel of the backpack and support some of the load placed in the backpack.

In the Office Action, with regard to the shoulder strap cinch straps, the Examiner argued that "Gausling et al. teach a strap system where support straps (600) extend from a backpack's shoulder strap over the top of the backpack to an away-facing face of the backpack, the support straps functioning to maintain the shape of the bag and offer further support for the load being carried (col. 9, lines 5-27). It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide support straps on top of the backpack of

Ivarson et al., as taught by Gausling et al., in order to help maintain the shape of the bag and to provide more support for the load being carried in the backpack."

Again, Applicant respectfully disagrees with the Examiner's argument. As noted hereinabove, the angled bottom of Ivarson renders the backpack of Ivarson **trapezoidal**, and is important to the functionality of Ivarson. Further, Ivarson is provided with angled dividers 30, 34, 36. With this design, Ivarson teaches that the upper end of the shoulder straps are secured to the top of the back panel, and not the top panel of the backpack. In contrast, the support straps (600) of Gausling function to keep the backpack of Gausling **square**. The Examiner has not explained how "provid[ing] support straps on top of the backpack of Ivarson et al, as taught by Gausling et al.," would help maintain the shape of the bag of Ivarson. The Examiner is requested to provide an explanation of how moving the upper connection point of shoulder straps 38 in Ivarson, or other support means, to the top panel of Ivarson would assist maintaining the shape of the bag. Without this support, Applicant respectfully submits that a person skilled in the art would not combine the support straps of Gausling with the angled bottom of Ivarson, because the two features each serve to provide the respective backpacks with a different shape, and therefore, serve opposing functions.

Accordingly, Applicant respectfully submits that claims 17, 22, 30 and 47 are not unpatentable over Ivarson in view of Gausling, further in view of Clements, and Godshaw for at least this reason.

3. A Person Skilled in the Art Would not Combine Ivarson and Gausling to Provide Cinch Straps that Extend Over a Closure Member.

Claims 17, 30, 41 and 51 of the present application specify at least one shoulder strap cinch strap that extends over the closure member of the backpack.

As noted hereinabove, with regard to the shoulder strap cinch straps of the present application, the Examiner argued that "It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide

support straps on top of the backpack of Ivarson et al, as taught by Gausling et al., in order to help maintain the shape of the bag and to provide more support for the load being carried in the backpack". The Examiner further argued that "these straps, when implemented on the backpack of Ivarson et al would certainly extend across the closure (32) of Ivarson et al."

Applicant respectfully disagrees with the Examiner's argument, and submits that even if a person skilled in the art were motivated to provide support straps on top of the backpack of Ivarson et al, as taught by Gausling et al. (which is not admitted), the person skilled in the art would not position them to extend across the closure of Ivarson.

Ivarson includes a "front panel 14, back panel 16, right side panel 20, left side panel 22, and top panel 24 defining an interior volume 26" (Column 2, Lines 14-16). Referring to Figures 1 and 5 of Ivarson, Applicant notes that the "top panel 24" is not the horizontal surface extending across the top of the backpack; rather, it is a semi-vertical surface at the front of the backpack, above front panel 14. In order to open the backpack "Top panel 24 includes a releasable fastener such as a zipper 32 to close upon front panel 14" (Column 2, lines 25-26). Accordingly, the fastener of Ivarson is adjacent the front of the backpack. The horizontal upper panel is not opened.

As noted hereinabove, Ivarson includes "at least one divider within the internal cavity connected to and intersecting the back panel at a diagonal, and extending between the right and left side panels to provide a diagonal support surface for an item placed within the pack" (abstract). The dividers provide "quick access" to the contents of the backpack (Column 1, line 51). In addition, the divider(s) "serves to orient the contained load of the pack and direct the weight of the load towards the back panel, thereby distributing the weight along the length of the user's back" (Column 1, Lines 40-43).

As can be seen most clearly in Figure 5 of Ivarson, the dividers are positioned behind and spaced from the top panel 24, and further, behind the zipper 32 of the backpack (i.e. between the zipper and back panel 16). Accordingly, Applicant respectfully submits that any items placed in the backpack of Ivarson would sit at least behind the zipper 32, and more likely, adjacent back panel 16.

Accordingly, if a person skilled in the art were motivated to provide support to the horizontal top panel of Ivarson, which is not admitted, they could do so by moving the upper end of the shoulder strap to a position on the horizontal top surface but on the side of the closure member closest to the wearer's back. Alternately, a cinch strap could have one end so positioned. There is no need to place the support point on the side of the closure member closest to top panel 24. Such a placement would not provide much, if any, additional support to the load in the bag and would overly complicate the design.

In particular, any items placed in the backpack of Ivarson would sit at least behind the zipper 32 of Ivarson. Accordingly, in order to assist in bearing the load in the backpack, the top straps of Gausling, if provided on the backpack of Ivarson, would at most need only to extend to a position adjacent and behind the zipper 32. As no weight is borne between the zipper and the top panel 24, there would be no need to configure the top straps to extend across the zipper to top panel 24. Configuring the top straps to extend across the zipper would not only serve no purpose in the backpack of Ivarson, but would interfere with the stated "quick access" of the backpack, and would needlessly increase the cost and complexity of the backpack.

Using the principle of Occam's razor, a person skilled in the art would not be motivated to complicate the design as suggested by the Examiner. A person skilled in the art would be mindful of commercial realities and would not be motivated to complicate a design by extending a support strap over the closure member of Ivarson since it is not needed.

Accordingly, as a person skilled in the art would not combine the Ivarson and Gausling in such a manner as to yield the subject matter of claims 17 and 30, Applicant respectfully submits that claims 17 and 30 are not unpatentable over Ivarson in view of Gausling, further in view of Clements, and Godshaw.

4. None of the Cited References teach the Subject Matter of Amended Claim 17

In the Office Action, the Examiner argued that "Clements discloses a side cinch strap (25) positioned at a middle region of a backpack and connected to the backpack body for pressing against a load contained within the backpack to control movement of that load".

The backpack of Clements includes a front panel (2) and a back panel (3) (column 3, lines 12-13). A hoop (20) is provided which extends from the back of the backpack around to the front (Column 3, lines 52-53). Compression straps 25 and 28 are connected between the hoop and the backpack such that the hoop may be adjusted relative to the backpack (abstract). As can be seen most clearly in Figure 4 of Clements, one end of each of the compression straps is connected to the backpack near the back panel, and the other end is connected to the hoop near the front panel. Accordingly, the compression straps 25 and 28 have a first end that is connected near the back panel of the backpack, and a second end that is connected to a hoop and is movable with respect to a front panel of the backpack. The second end of the cinch strap is not connected to a panel of the backpack as claimed in claim 17.

Claim 17 has presently been amended to specify that the at least one side cinch strap has "a first end fixedly connected to said away-facing face and a second end fixedly connected to said back-facing face for cinching said away-facing face and said back-facing face towards each other".

Nowhere does Clements teach, disclose, or suggest a side cinch strap that has "a first end fixedly connected to said away-facing face and a second end fixedly connected to said back-facing face". Rather, as noted hereinabove, in Clements, the compression straps use to move an exterior hoop. The Examiner has not provided any explanation of why a person skilled in the art would amend the design of Clements to remove the hoop and attach the other end of the compression straps to a panel of the backpack itself.

Accordingly, Applicant respectfully submits that claim 17 is not unpatentable over Ivarson in view of Gausling, further in view of Clements, and Godshaw for at least this reason.

**Claims 18, 19, 23, 24, 26, 28, 31-33, 35, 37-39, 41, 42, 44, 45, 48, and 50-62:**

Claims 18, 19, 37-39, 52, 55, and 59 are dependent on claim 17; claims 23, 24, 26, 28, 41, 42, 53, and 56 are dependent on claim 22; claims 31-33, 35, 44, 45, 54, 57, and 61 are dependent on claim 30; and claims 48, 50, 51, 58, and 62 are dependent on claim 47. Thus, the forgoing arguments apply equally to these claims, and applicant respectfully submits that these claims are in condition for allowance.

**Claims 3, 29, 40, 43, 46, and 49**

In the Office Action, the Examiner further stated that claims 3, 29, 40, 43, 46, and 49 were rejected under 35 U.S.C. 103(a) as being unpatentable over in view of Gausling, Clements, and Godshaw, and in view of further cited references.

Claim 3, 29, and 43 are dependent on claim 22; claim 40 is dependent on claim 17; claim 46 is dependent on claim 30; and claim 49 is dependent on claim 47. Thus, the forgoing arguments apply equally to these claims, and applicant respectfully submits that these claims are in condition for allowance.

### **Claim Objections**

In the Office Action, the Examiner objected to claims 59-62 because 'in each of these claims, "the front-facing face" should read "the away-facing face"'. By this response, the requested change has been made.

### **New Claim 63**

Applicant has presently added new claim 63 to the application. New claim 63 is dependent on claim 17, and thus the forgoing arguments apply equally thereto.

Further, new claim 63 specifies that the at least one shoulder strap is contoured to remain generally flat on the body of the wearer along an entire length of contact therewith. Applicant respectfully submits that none of the cited references teach, disclose, or suggest this subject matter, and claim 63 is allowable for at least this reason.

### **Summary**

Applicant respectfully submits that the claims are now in condition for allowance. Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,  
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